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Limiting U.S. Policy Options to Prevent Nuclear Weapons Proliferation: The Relevance of Minimum Deterrence

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This paper was presented at the Lawrence Livermore National Laboratory workshop: *The Role of Nuclear Weapons in the Year 2000,* October 22–24, 1990

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Limiting U.S. Policy Options to Prevent Nuclear Weapons Proliferation: The Relevance of Minimum Deterrence

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I plan to discuss policy options to prevent the spread of nuclear weapons. But if I were to subtitle my discussion, it would be, "first decide if the game is worth the candle." I say this because I think there is a link between the kinds of policies that we are willing to entertain to prevent nuclear weapons proliferation and some of the arguments about the credibility of various deterrent postures that we have heard at this Workshop and that have appeared in recent literature. That is, if we argue that minimum deterrence between superpowers would work—and indeed that we ought to be working toward such a posture—then we should consider the implications of such an argument for the position held by some scholars that nuclear proliferation may be both an inevitable and a positive development. Specifically, the implication may be that governments are reluctant to embrace some of the more costly and risky nonproliferation policies precisely because they question both the plausibility and the desirability of preventing nuclear weapons proliferation, whether or not they are willing to openly express such doubts.

I will begin with a viewgraph (see Table 1). I come from the National War College where nobody ever says anything without a stack of viewgraphs—I brought one. I have never used viewgraphs before, and so this is sort of an incremental approach. If it goes well, I am sure they will be pleased at the War College to see that I am finally coming around to their way of doing things.

I initially wanted to use this viewgraph to create a list of policy options for preventing the spread of nuclear weapons. But as it turns out, I am a fallen-away political scientist with atavistic tendencies, so I created a matrix instead of just a list—but it is really just a list. The matrix form does allow me to group items in a way that makes it easier to describe why I think the United States has *not* pursued as aggressive a policy to prevent nuclear weapons proliferation as it might have.

United States Options

The upper left-hand corner (the first quadrant) of Table 1 lists options that describe what we have been doing and what we are doing. They seem to be good ideas, and we ought to keep doing them. For those who would disagree with that, I recommend Lewis Dunn's recent writings on the subject. They contain the best and most recent arguments that I know of about why these policies are indeed good things to do.

The upper right quadrant lists items that are not particularly hard to do, but are slightly less obviously useful in preventing the spread of nuclear weapons. That is to say, I think that these policies are arguable or, as Al Carnesale said in his discussion at this Workshop, "I can imagine myself arguing either side of the issue," and that always makes me uncomfortable. I

[1]Opinions, conclusions, and recommendations expressed or implied within are solely those of the author, and do not necessarily represent the views of the National Defense University, the U.S. Department of Defense, any other U.S. Government agency, or any agency of a foreign government.

Table 1. Some U.S. nonproliferation policy options: preventing the acquisition, testing, stockpiling, transferring, and "thermonuclearizing" of nuclear weapons.

COST	EFFECTIVENESS: Clearly or almost certainly effective and helpful	EFFECTIVENESS: Uncertainty over impact, but possibly helpful
Painless and low cost: relatively easy-to-do or pursue	• Support NPT • Support IAEA • Support Export Control Activity • Work to reduce regional tensions, especially in the Middle East, South Asia, and North East Asia	• Ratify TTBT/PNET • Ratify START and pursue START-II and SNF negotiations • Pursue CW agreements • Pursue NFZs and full adherence to Treaty of Tlateloco
Potentially painful with higher cost/risk, or at least diplomatically burdensome: relatively hard-to-do or pursue	• Pursue regional dialogues focused on nuclear weapons proliferation issues and work to include CBMs in bilateral agreements • Use regional dialogue to attempt to freeze or "plateau" fissile material production/nuclear weapons development • Work to prevent use of plutonium fuels (for LWR recycle or breeders) in countries with "developing nuclear programs" • Intensive diplomatic program to shut down sales of sensitive nuclear technology • Restate or "enhance" security guarantees to Germany, Japan, South Korea, and Taiwan • Extend new security guarantees to Israel and Pakistan	• Cut-off foreign assistance and/or military sales to countries that take specified actions inconsistent with nonproliferation goals • Pursue a CTB • Work to restrict or prevent use of plutonium fuels (for recycle or breeder) in nuclear power programs of "advanced countries" as well as in those with "developing nuclear programs"
	• Use military or covert action to destroy emerging nuclear weapon capability	

think this is partly because these policy options relate to the connection between vertical and horizontal proliferation—a connection that I have never been quite convinced was real, but which I have never been sure was not true in part, or in some particular cases. Some of these items are aimed at trying to shore up the "nonproliferation regime"—a rather amorphous kind of thing—as distinct from addressing a specific country's motivation for acquiring nuclear weapons. It seems to me that the former may be desirable, but it may have absolutely nothing to do with the latter. In other words, what the United States does in the Threshold Test Ban (TTBT) Treaty, or what it does in the Strategic Arms Reduction Treaty (START), or did in the Strategic Arms Limitation Treaty (SALT) may bear on the continued viability of the Nonproliferation Treaty (NPT), but may not affect Pakistan's calculations about acquiring nuclear weapons.

In the lower right quadrant, the first option listed is the perennial favorite: cutting off foreign assistance to a country that does something related to nuclear weapons development that we think it ought not to do. This can be defined in many ways and has been by the U.S. Congress. The option is listed under the heading "possibly effective" rather than "clearly effective," because foreign assistance is not now, at least, much of a stick with which to beat other countries, if it ever was. As a lever, you should not ask too much of foreign assistance. It should not be expected to lift heavy objects. Again, though, I think that there is a distinction between how a policy will impact a specific country and how it will affect the nonproliferation regime. It is pleasing to have a foreign policy that contains a tenet barring assistance to a country that does things that are damaging to the nonproliferation regime. That's nice. Consequently, when the Congress passes such legislation, we may say, "That's good because it is supporting the regime." On the other hand, when Congress creates a loophole so that an ally, such as Israel, is excluded and unhindered, or if it waives the legislation repeatedly, as in the case of Pakistan, one wonders if it does not have exactly the opposite effect with respect to the regime and with respect to the degree of seriousness with which other states view the United States' commitment to nonproliferation.

The Comprehensive Test Ban (CTB) is in the lower quadrant, rather than the upper where the TTBT is listed, because I think that a CTB is potentially more costly to us. I know there are many at this Workshop who think it would be horrible and question whether or not it would have much of an impact on proliferation. It seems to me as though it would have *some* impact on the regime, given our experience at the last NPT Review Conference.

Plutonium fuels are listed in the lower quadrant partly out of nostalgia. There are two plutonium fuel options listed: the third item on both the right and on the left lower portions of the matrix. The difference is that on the right side I have included restricting or preventing the use of plutonium fuels in countries that have advanced nuclear fuel cycles, while the measure listed on the left only addresses those countries with developing nuclear programs. This relates to the debate that emerged in the Carter Administration and was resolved in the Reagan Administration, as to whether or not it made good sense to harass the Europeans and the Japanese over what they did with U.S.-origin spent fuel. I think that this point is arguable, and that is why it is on the right side of the matrix.

What is really interesting, of course, are the policy options in the lower left portion of the matrix. These are options that strike me as being almost certainly effective policies, but also costly or involving risk, or at least being diplomatically burdensome. Notice that the first two items are related to regional policy. They are listed first, because I think that, over the long term, the only successful nonproliferation policy will be one that focuses on regional politics. Put another way, where nuclear proliferation is an issue, it needs to be integrated into our regional policy and, presumably, in a very central way. I have listed two approaches, but one could imagine others: confidence building measures and the concept of "plateauing" for those countries that have already breached certain, important thresholds. By the way, with respect to thresholds, the rather lengthy title of Table 1 is meant to recognize the character of proliferation as a "process" to be inhibited, rather than just a state or condition to be denied.

On the issue of plutonium fuels, note that recently countries have been taking the other route (i.e., uranium enrichment) and have been using gas centrifuge technology as the way to do it. While I recognize this, I still think failing to address plutonium fuels would be a mistake. There is, first, the problem of terrorism when large quantities of plutonium are in transit. Second, I think plutonium fuels are at least an attractive nuisance even if gas centrifuge technology is available, and we ought not forget that. I think, in other words, that the Ford-Miter report was correct in 1974.

I also suggest, in the lower-left quadrant, that shutting down the sales of sensitive technology would be a very good idea. I would like you to contrast that with the idea of supporting export control, which is above the line in the first quadrant. By "shutting down sensitive nuclear transfers," I mean an aggressive diplomatic policy that would be quite costly and difficult to implement, but I think would be very effective. In the past, we have approached such a policy. The Carter Administration clearly showed more vigor in this enterprise than we have seen in the Reagan or Bush Administrations.

In the area of security guarantees, we might want to do something in terms of broadening or restating our security guarantees with respect to Germany and Japan. In the cases of South Korea and Taiwan, the existing security guarantees are essential and must be left in place; with respect to Israel and Pakistan, I can imagine a regional solution that involves a greater U.S. security commitment than we now have. I do not think any of this would be inexpensive in terms of the politics associated with it, but I think it would be effective.

The last point that I will address on this chart is the U.S. military or covert action option. You will notice that it is located between the two sets of policies, and that is because I am ambivalent. Being a government bureaucrat, and not Solomon, I decided to split the difference and put the option in the middle. Although direct intervention has the potential advantage of being immediately effective, one must wonder if it would be as effective over the long term.

Table 1 is not meant to be exhaustive, and I hope that there are other ideas around that will surface in the discussions at this Workshop.

Pursuing More Effective Policies

Instead of discussing each one of the options in Table 1 in more detail, I would like to turn to the question of why the United States has not pursued more of those policies that have a better chance of success but might also be more costly—namely those in the lower left or third quadrant. Part of the explanation is that such policies are simply too costly in the short term and are unlikely to succeed in the long term. One occasionally hears this argument in response to initiatives for a regional arrangement in the Middle East or South Asia, as well as in response to proposals to shut down sensitive nuclear exports. The argument is that Israel, Iraq, Pakistan or India simply will not cooperate, or that to continue issuing *demarches*—especially high-level *demarches*—to France, Germany, Switzerland, Turkey or whomever is simply "more than the traffic will bear." It is too costly an enterprise, it is argued, for what we will get out of it over the long term. The technology will inevitably spread; indeed proliferation is an inevitable process. There is a similarity here between what Harold Brown is reported to have said about the arms race between the United States and the Soviet Union and about what could be said of nonproliferation efforts: "when we built, they built; when we do not build, they build," and in the nonproliferation business, "when we supply aid, they build; when we cut off aid, they build." In other words, we should not pay the high political price with allies or in our regional relations, on the slim chance that at best we will only delay an inevitable process.

With this argument about policymakers' calculations of inevitability and high costs as a backdrop, I would like to turn to my main theme in this paper, that is, the never-articulated argument (at least I do not recall it being articulated in government) that *nuclear weapons proliferation may have "salutary" effects for international peace and stability.* If we think back over 45 years of U.S. post-war policy, we have had unbroken opposition to nuclear weapons proliferation—anyone's proliferation. Nuclear weapons in the hands of other countries were thought to

threaten U.S. security and that of our allies. Indeed, we did not even want our allies to have nuclear weapons. It was common sense that motivated us in large part—the belief that the greater the number of nuclear weapons states, the greater the probability of nuclear war. Moreover, if our allies had nuclear weapons, they might easily entangle the United States in a conventional war to prevent nuclear war, or in a conventional war that escalated to a nuclear war. We did not favor Taiwan, South Korea, Israel, Japan, or even our allies in Europe obtaining nuclear weapons.

Nuclear weapons proliferation might also inhibit and complicate the exercise of U.S. influence around the world and perhaps even the projection of U.S. force. Nuclear weapons were thought to be bad for the security of allies, bad for U.S. security, and bad for international security. The U.S. would bear the burden of having nuclear weapons, along with the few other countries that also acquired them, but they were not a net benefit to us. Holding up the nuclear umbrella was a dirty job that somebody simply had to do.

But a nearly equal and impressive lineage exists with regard to arguments that nuclear weapons have had beneficial implications for U.S. security, for the security of other states, and for international stability. These were, without exception, variations or extensions of the proposition that *a small force of survivable nuclear weapons would deter an adversary from initiating military action that would threaten a nation's vital interests.* I mean this to be a rough approximation of a definition of *minimum deterrence.* There was much debate over whether minimum deterrence would be credible deterrence in the French case. There was a lot less opportunity for debate in the cases of China and Israel. Academic literature, some of it coming from Kenneth Waltz, suggests that more proliferation may be better, but lots of variations on the theme exist. There have been 45 years of Cold War, with no hot war, no nuclear war, no direct military confrontation between the United States and the Soviet Union. Extension of the argument for nuclear deterrence to regional conflicts, it would seem, is plausible if not irresistible. To argue that we have a monopoly on rationality is *nonsense* or, worse, *racial nonsense.* It seems to me that there is some common sense here too. Nuclear weapons do have a chilling effect, or as Waltz put it: "Nuclear weapons produce an underlying stillness at the heart of international politics."[2]

I am arguing that, although this debate has been a standoff of sorts, with the passing of the bipolar world, new arguments are surfacing that must be addressed by anyone who advocates nonproliferation policies that are at all costly—those in the lower quadrants of Table 1. For example, John Mearsheimer sees Europe's future in a multipolar world as marked by conflict. He made this argument in his article in *International Security* and recently in a presentation at the annual convention of the American Political Science Association. He looks at Europe and sees a future of ethnic tensions, irredentism, and separatist movements—all kinds of centrifugal forces leading to instability in Central Europe. In that context, he argues that insecurity will nag at German leaders, making them unhappy with reliance on Poland and Czechoslovakia as a buffer against a sullen and hostile Soviet Union. Thus, he believes it likely that first Germany and then the lesser European powers will seek nuclear weapons to resist blackmail in the post-Cold War era. Moreover, he says (and this is the most relevant point for us) that this would be good. It would be good because the alternative is so bad; "...a nuclear-free Europe would be the most dangerous among possible post-war orders. The pacifying effects of nuclear weapons—the security they provide, the caution they generate, the rough equality they impose, and the clarity of relative power they create—would be lost."[3]

Waltz argues similarly that Japan and Germany *will not* remain in the anomalous position of near-great powers without military force to match their economic strength. Like Mearsheimer, Waltz clearly sees such proliferation as inevitable and good. He writes, "...China and other countries have become nuclear powers without making the world a more dangerous one. Why should nuclear weapons in German and Japanese hands be especially worrisome? Nuclear weapons have encouraged cautious behavior by their possessors and deterred any of them from

[2]Kenneth N. Waltz, "The Emerging Structure of International Politics," presented at the *American Political Science Convention* in San Francisco, Calif. (August 1990), p. 14.
[3]John Mearsheimer, "Back to the Future: Instability in Europe after the Cold War," *International Security* **15**(1), 32 (Summer 1990).

threatening another's vital interests. What reasons can there be for expecting Germany and Japan to behave differently?"[4]

Notice that if we take Waltz's conditions for realizing the positive consequences of nuclear weapons proliferation (i.e., survivable second-strike forces, adequate command, control, and communication, and physical security measures to prevent accidental and unauthorized launch or terrorist access), they are similar to the survivable, controllable, and safe nuclear weapons that McGeorge Bundy described at this Workshop in his discussion of future U.S. and Soviet arsenals.

When discussing new nuclear weapon states, Waltz even tells us how large the second-strike force needs to be: "...a second-strike force need only be a small one; and it is easy to say how large the small force needs to be—large enough to sustain a first-strike without losing the ability retaliate with some tens of warheads."[5] That is close to the 100 nuclear weapons that Herbert York discussed in his presentation at this Workshop on future U.S. and Soviet forces.

What are we to make of all this? Is proliferation to Japan and Germany inevitable and good? What would be the impact on the nonproliferation regime? Would it produce lots more proliferation? What would be the impact in Europe and the Far East? Putting aside predictions, is the argument for the salutary effects of nuclear weapons proliferation applicable to regional conflict in the Middle East, in South Asia, and in Northeast Asia? How we answer such questions should affect our thinking about nonproliferation policy. Mearsheimer would actually help Germany acquire nuclear weapons so that German acquisition occurs in a time of peace, rather than at a time when it feels threatened, in the midst of crisis. Although outright assistance to other states might sound a bit bizarre, we have heard talk about the virtue of a "broader" nonproliferation strategy that would include management of the proliferation process.

[4]Waltz, *op. cit.*, p. 23.
[5]*Ibid.*, p. 12.

At this Workshop, Albert Carnesale spoke about this in the most intelligent and balanced fashion that I have heard. The proposition is that we address decisions about whether or not to "accept" some proliferation (in order to manage its consequences) in terms of tradeoffs. Put in these terms, we will do a better job assessing tradeoffs in a particular case if we have resolved the question of minimum deterrence, if we know what will be stabilizing and what will be provocative in that case. The objective might be to make the best not only of a bad situation, but also of a potentially good situation by ensuring that the transition to minimum deterrence does not lead to windows of instability in which there is a premium on preemption or the risk of an accident.

This approach also helps resolve one of those debates that crop up in government occasionally over what to do about sanctions. The issue would come up over how to respond if a particular country were to breach some "fire-break" or "red line" that we had created—perhaps by withdrawing from or violating safeguards, or by testing a nuclear explosive device. There would always be *at least* two sides: one would argue that severe sanctions ought to be imposed to deter other states from doing something similar and to shore up the nonproliferation regime, and the other side would argue that it would be "nonsense" to severely penalize and isolate a state that was apparently moving irrevocably toward a nuclear weapons capability. The result, the second group claimed, would be to create a pariah state—perhaps even a "supplier-pariah"—the last thing we would want to do.

It is entirely possible to conclude that if minimum deterrence is viewed as a viable posture for new nuclear weapons states, as well as old ones, a debate over sanctions should be resolved in favor of "managing proliferation"—working with, rather than isolating, a transgressing state. More generally, if proliferation is probably inevitable and may well also be "good," the prescription that follows is to resist looking to the lower two quadrants of Table 1 for policies to prevent nuclear weapons proliferation.

Correctly Assessing Vital Interests

Without attempting to resolve the question of the applicability of minimum deterrence to regional states, I suggest that we at least consider one element of minimum deterrence that is relevant to Third World proliferation: geography.

On the subject of a new, emerging multipolar world with nuclear weapons, Waltz has written:

> "Can we say that military force has lost its usefulness or simply become irrelevant? Hardly....Nuclear weapons bend strategic forces to one end: deterring attacks on a country's vital interests. Because strategic weapons serve that end and no other, peace has held at the center through almost five post-war decades, while war has frequently raged at the periphery. Nuclear weapons have at once secured the vital interests of states possessing them and upheld the international order."

After survivable second-strike forces and all the rest are achieved, what nuclear weapons do is deter acts that threaten vital interests. But, if that is so, it may be that the U.S.-Soviet model is not a good one. Geopolitically, the superpowers are rather unique, having extensive peripheries; empires are like that. They are certainly unique when compared with contiguous states in the Third World that lack the luxury of peripheries.

It would seem obvious that if North and South Korea fought a war, they would fight it on the Korean peninsula. Similarly, if India and Pakistan, the People's Republic of China (PRC) and Taiwan, Israel and anyone of its regional adversaries, or the states in Central Europe, were they to go to war, they would do so on their own territories. That would *probably* mean that these states would engage vital territorial interests in any sustained conflict—probably. So, for minimum deterrence to work, with relatively small, geographically contiguous states, it seems to me that the realization of the potential for escalation to nuclear war would either have to deter all war, or such regional nuclear weapons states would have to exercise extraordinary restraint in any armed conflict so as not to threaten the other side's vital interests. What does that mean? It means that states so engaged would have to correctly assess both an adversary's vital interests and when that adversary would regard those interests as threatened. They would have to act with restraint based on that calculation rather than respond to domestic or military pressure to pursue a successful military campaign. They would have to resist the temptation to launch a preemptive nuclear strike *even* if the adversary appeared ready and able to attempt preemption.

I recognize that when we stipulate second-strike capability, we are stipulating a number of physical conditions that would create a real disincentive to a first-strike. But, having said that, in a real world of leaders who have strong views about what their people expect and will tolerate, missile-to-target ratios may not be that important. The national leadership in these states would also have to resist the temptation to call the essential bluff of minimum deterrence, that is, to resist the conclusion that since the enemy was absolutely deterred from initiating a nuclear strike, they were free to press a conventional attack on the enemy's vital assets.

This is all very abstract stuff, I know, and maybe the only way to deal with it is to return to the regional setting to put some flesh on the analysis. We could ask hypothetical questions, for example: If Iran and Iraq had had nuclear weapons, would there have been so many years of conventional war? Would it have remained essentially a border war? Would it have escalated to the cities? Or would there have been no war at all, Iraq having been deterred? If the PRC were to eventually come to understand that the United States would not use force to prevent *it* from using force to reintegrate Taiwan into China, would Beijing eventually do so? Would Taiwanese nuclear weapons stop the PRC from so proceeding? Would Taiwan use nuclear weapons to stop the PRC from so proceeding? What were the Egyptian and Syrian calculations in 1973 about Israeli willingness to use nuclear weapons? What are the Israeli calculations today? If Iraq had acquired a small, dispersed and hardened nuclear force, would the allies proceed differently in their effort to evict Iraqi forces from Kuwait? Which side would be deterred from doing what?

Conclusions

I conclude that we need to do more work on the concept of minimum deterrence. We need to come to a better understanding of when it is likely to work and when there is real risk that it will fail. In one sense, it is arguably easier to study failure than success because when deterrence works we are dealing with an inference that is essentially counterfactual (i.e., if A had not posed the threat of nuclear retaliation, B would have behaved differently), and it is always hard to figure out why things do not happen. Alternatively, it is possible to argue that there is ample evidence of minimum deterrence succeeding, and no case where it has failed.

If we do have continued slow proliferation—the rate has been about two countries per decade—we are going to have more data to examine minimum deterrence (that would be "the good news," I suppose). Proliferation to the great powers in the multipolar world, if it happens, should also lead us to reconsider minimum deterrence, both because it may produce instabilities in Europe and Asia, and because it is indeed likely to have a catalytic effect elsewhere. I am not as sanguine as Mearsheimer and Waltz about the implications of proliferation anywhere. And finally, if we do want to advance U.S. nonproliferation options that are at all costly, risky, and politically burdensome, we must deal not only with the arguments about the inevitability of proliferation, but I think also with arguments about its virtues.

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